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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,924	03/19/2004	Yin-Hung Chen	OP-092000188	6712

7590

08/23/2004

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EXAMINER

DUONG, THO V

ART UNIT      PAPER NUMBER

3743

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/803,924

Applicant(s)

CHEN, YIN-HUNG

Examiner

Tho v Duong

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3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 10 are rejected under 35 U.S.C. 102(a) as being anticipated by Malone et al. (US 2004/0050534A1). Malone discloses (figures 1,3 and 5) a heat dissipation device comprising a heat sink portion (30) including a base (12) and a thermal conductive unit with a plurality of posts (11) formed thereon; a plurality of planar fins mounted over the heat sink portion and stacked along a vertical direction; and at least two L-shaped heat pipes (10), each having a horizontal extension on the base and a vertical extension passed through the fin portion to obtain a staggered arrangement therein.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malone in view of Miyamura et al. (US 6,646,341). Malone substantially discloses all of applicant claimed invention as discussed above except for the limitation that a metal shield partially enclosing the heat pipe and the fin portion. Miyamura discloses (figures 1C and 7b and column 1, lines 52-60)

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a heat sink-heat pipe assembly that has a metal shroud (140) surrounding the heat sink portion (230) and the fin (350) and attached to the base of the heat sink for the purpose of further transferring heat from the heat sink device to the shroud and dissipate heat to the environment. Since Malone and Miyamura are from the same field of endeavor and/or analogous art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Miyamura's teaching in Malone heat sink device for further transferring heat from the heat sink device to the shroud and dissipate heat to the environment.

Claims 4-9 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malone and Miyamura as applied to claims 1-3 above, and further in view of Wobig et al. (US 2003/0198016A1). Malone and Miyamura substantially disclose all of applicant's claimed invention except for the limitations that the shield is fasten on the base by a screw device and a fan is mounted on a mounting area. Wobig discloses (figures 3,4 and 6) a heat sink device (26) having a shroud (32) mounted on the heat sink base by a plurality of screws (36) for the purpose of removably attached the shroud to the heat sink device. Wobig further discloses that the heat sink device has a mounting area either on sides (40a,40b) for attaching a fan (64) on the mounting area for the purpose of enhance the cooling capacity of the heat sink device by using forced air blowing through the heat sink. Since Malone, Miyamura and Wobig are all from the same field of endeavor and/or analogous art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Wobig's teaching in the combination device of Malone and Miyamura for the purpose of removably attached the shroud on the heat sink device and for enhancing the cooling capacity of the heat sink device by using forced air blowing through the heat sink.

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***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lofland et al. (US 6,625,021) discloses a heat sink with heat pipes and fan.

Todd et al. (US 2004/0035558A1) discloses a heat-dissipating tower for circuit device.

Forkas (US 6,404,632) discloses a heat sink device having a plurality of planar fins and heat pipe extending through the fins.

Chung et al. (US 6,711,016) discloses a side exhaust heat dissipation.

Lai (US 6,542,364) discloses a heat dissipating assembly with heat pipes.

Chang (US 2002/0080582A1) discloses a heat pipe heat-dissipating device.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tho Duong whose telephone number is (703) 305-0768. The examiner can normally be reached on from 9:30-6 PM.

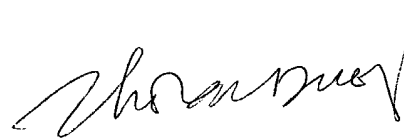
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennet, can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.



TD

August 18, 2004



Tho Duong

Patent Examiner.